

UNIT TERMINAL OBJECTIVE

1-4 At the completion of this unit, the EMT-Intermediate student will be able to safely and precisely access the venous circulation.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 1-4.1 Review the specific anatomy and physiology pertinent to intravenous access. (C-1)
- 1-4.7 Calculate intravenous infusion rates for adults, infants, and children. (C-2)
- 1-4.10 Discuss medical asepsis and the differences between clean and sterile techniques. (C-1)
- 1-4.11 Describe use of antiseptics and disinfectants. (C-1)
- 1-4.12 Describe the use of universal precautions and body substance isolation (BSI) procedures when administering a medication. (C-1)
- 1-4.13 Describe the indications, equipment needed, techniques utilized, precautions, and general principles of peripheral venous cannulation (Including saline locks). (C-1)
- 1-4.14 Describe the indications, equipment needed, techniques utilized, precautions, and general principles of intraosseous needle placement and infusion. (C-1)
- 1-4.15 Describe the indications, equipment needed, techniques utilized, precautions, and general principles of administering medications by the inhalation route (Including endotracheal route). (C-3)
- 1-4.22 Describe the purpose, equipment needed, techniques utilized, complications, and general principles for obtaining a blood sample. (C-1)
- 1-4.23 Describe disposal of contaminated items and sharps. (C-1)

AFFECTIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 1-4.27 Comply with universal precautions and body substance isolation (BSI). (A-1)
- 1-4.29 Serve as a model for medical asepsis. (A-3)
- 1-4.31 Serve as a model for disposing of contaminated items and sharps. (A-3)

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 1-4.32 Use universal precautions and body substance isolation (BSI) procedures during medication administration. (P-2)
- 1-4.33 Demonstrate cannulation of peripheral veins (Including saline locks). (P-2)
- 1-4.34 Demonstrate intraosseous needle placement and infusion. (P-2)
- 1-4.40 Demonstrate preparation and techniques for obtaining a blood sample. (P-2)
- 1-4.41 Perfect disposal of contaminated items and sharps. (P-3)

DECLARATIVE

- I. Medical direction
 - A. Medication administration is bound by the EMT-Intermediate's on-line or off-line medical direction
 - B. Role of the medical director
 - C. Patient management protocols
 - 1. Written standing orders
 - D. Legal considerations policies and procedures which specify regulations of medication administration
- II. Medical asepsis
 - A. Clean technique versus sterile technique
 - B. Sterilization
 - C. Antiseptics
 - D. Disinfectants
- III. Universal precautions and body substance isolation (BSI) in medication administration
- IV. Venous access
 - A. Peripheral intravenous cannulation
 - 1. General principles
 - 2. Indications
 - 3. Precautions
 - 4. Equipment
 - 5. Technique
 - a. Extremity
 - (1) Indications
 - (2) Precautions
 - (3) Equipment
 - (4) Procedure
 - b. External jugular
 - (1) Indications
 - (2) Precautions
 - (3) Equipment
 - (4) Procedure
 - c. <u>Saline locks</u>
 - (1) Indications
 - (2) Precautions
 - (3) Equipment
 - (4) Procedure
 - B. Intraosseous needle placement and infusion
 - General principles
 - 2. Indications
 - 3. Precautions
 - 4. Equipment
 - 5. Technique

- V. Medications administered by the inhalation route
 - A. Bronchodilator (beta agonist) medications
 - Other medications
 - B. Equipment
 - 1. Oxygen or compressed air source
 - 2. Small volume nebulizer (SVN)
 - a. Other inhaler equipment
 - b. Other adapter equipment
 - c. Modified inhaler equipment
 - C. Administering medications by the inhalation route
 - 1. Indications
 - 2. Techniques
 - 3. Precautions
 - 4. General principles for administering medications by the inhalation route
 - D. Administering medications by the endotracheal tube
 - 1. Indications
 - 2. Techniques
 - 3. Precautions
 - 4. General principles for administering medications by the endotracheal tube
- VI. Enteral medication administration
 - A. Oral administration of medications
 - Dosage forms of solid-form and liquid-form oral medications
 - a. Capsules
 - b. Time-released capsules
 - c. Lozenges
 - d. Pills
 - e. Tablets
 - f. Elixirs
 - g. Emulsions
 - h. Suspensions
 - i. Syrups
 - 2. Equipment
 - a. Souffle cup
 - b. Medicine cup
 - c. Medicine dropper
 - d. Teaspoons
 - e. Oral syringes
 - f. Nipples
 - 3. General principles for administration of solid-form and liquid-form oral medications
- VII. Obtaining a blood sample
 - A. Purposes for obtaining a blood sample
 - B. Equipment needed for obtaining a blood sample
 - C. Locations from which to obtain a blood sample
 - 1. Anatomical sites
 - 2. From the established intravenous catheter
 - Other locations
 - D. Steps to preparing equipment for obtaining a blood sample
 - E. Techniques for obtaining a blood sample

Preparatory: 1

Intravenous Access: 4

- F. Complications
- VIII. Disposal of contaminated items and sharps
 - A. Follow local protocol for disposal of contaminated items and sharps